

JAMES F. FRALISH and SCOTT B. FRANKLIN. 2002. **Taxonomy and Ecology of Woody Plants of North American Forests (excluding Mexico and Subtropical Florida)**. Illustrations by Hyosun Park. (ISBN 0-471-16158-6, hbk.) John Wiley and Sons Inc. One Wiley Drive, Somerset, NJ 08875, U.S.A. (Orders: 732-469-4400, 732-302-2300 fax). \$100.00, 624 pp, 550 line drawings.

Advances and developments in forestry and wildlife management in recent years have been borne out of vast amounts of scientific information and heightened public awareness of the value of our forests. This book seeks to educate its audience about the taxonomy and community ecology of North American forests. It begins with two chapters that appropriately introduce reader to taxonomy and forest ecology. Key ecological terms, such as population vs. community, are clearly defined, a section on forest community ecology and community (cover) types is included, and taxonomic concepts are introduced. Taxonomy seems to be one of the major themes in this book, with more emphasis on the principles of taxonomy and less on simple sight identification of only important commercial trees.

The book is generally divided into four major parts: **I**. Taxonomic Concepts and Methodology, **II**. Gymnosperms (Division Pinophyta), **III**. Woody Angiosperms (Division Magnoliophyta), and **IV**. Forest Community Ecology: Combining Species into Communities. **Part I** begins with the fundamentals of plant classification. Definitions of family, genera, species are provided, as well as explanations of latin binomials and author names. Proper techniques for collecting, labeling and preserving plant specimens are explained. Finally, the authors instruct on how to construct and use taxonomic keys.

In **Part II**, gymnosperms are considered. The section begins with an overview of gymnosperms, which includes, for example, sections on evolutionary history, wood composition and geographic range. The following chapter is a discussion of vegetative and reproductive structures. Subsequent four chapters are comprised of taxonomic descriptions of gymnosperm species in the Pinales, Taxales, Ginkgoales and Cycadales.

Part III deals with woody angiosperms, beginning like part II with an overview of the group. Information is included on life form, morphology and the taxonomic classification that follows Cronquist. There are two chapters on vegetative morphology and one chapter on reproductive morphology. The following eight chapters are dedicated to taxonomic descriptions. As in part II, taxonomic descriptions begin with a short discussion of familial characteristics, the number of taxa and taxonomic affinities. After each family are individual species descriptions with common names, a comprehensive, yet not overly complex discussion of morphological characters, economic importance, geographic distribution and cover types. Cover types can be cross-referenced to part IV.

Last, **Part IV** interprets forest community ecology, integrating the gymnosperm and angiosperm species previously discussed into communities. The first chapter in this section explains the different factors that contribute to forest composition. Factors such as climate, soil, topography and geology are considered. Moreover, a discussion of forest classification systems is put forth. To identify communities within natural vegetation regions, the authors employed the National Vegetation Classification Standard developed by the Nature Conservancy and developed their own naming strategy for the various communities described, which closely follows the Society of American Foresters' cover type system. The last five chapters of this book describe different forests in North America. Generally, these include Northern Conifer-Hardwood, Central Hardwood, Southern Pine-Hardwood, Rocky Mountain Conifer, and Northern and Southern Conifer Forests. The book ends with glossaries of technical terms and genus and species names, and separate species and subject indices.

This review would be incomplete without some recognition of the illustrations provided in this book. With 550 line drawings, the majority of the species described herein are illustrated. These

illustrations are informative, expository and beautiful. While they enhance the aesthetics of the book, they also tremendously increase the scientific value by providing a clear identification tool to support each species description. With more than 800 species described, this book is absolutely packed with information on woody plants. The comprehensive nature of this book makes it invaluable and a necessary text for any classes where dendrology, taxonomy, forestry, botany, resource management or environmental studies are taught. Fralish and Franklin have clearly set a high standard for the future of dendrology texts.—*Amy Trauth Nare, Botanical Research Institute of Texas, 509 Pecan Street, Fort Worth, TX 76102, U.S.A., amy_trauth@yahoo.com.*

DONALD WATTS. 2000. **Elsevier's Dictionary of Plant Names and their Origin.** (ISBN: 0444503560, hbk.). Elsevier Science B.V., Sara Burgerhartstraat 25, P.O. Box 211, 1000 AE Amsterdam, The Netherlands. \$209.50, 1001 pp, 6 1/2" × 9 1/2".

The dictionary contains about 30,000 vernacular and literary names of plants (primarily of English origin, although American, Australian, New Zealand, and South African names are included), both wild and cultivated, with their botanical name and a brief account of the names' meaning if known.

Knowledge of plant names can give insight into largely forgotten beliefs. Such names were probably the result of some taboo against picking the plant or eating the fruit. Names may also be purely descriptive, and can also serve to explain the meaning of the botanical name. Literary, or "book" names, have also been included in this dictionary, as being a very important part of the whole. That is, names of plants that were written but never used in the vernacular. Names in many instances provide links to the transmission of words through the ages.

The work represents an extensive accumulation of names from a wide diversity of sources. An entry is presented by the vernacular name followed by its botanical (Latin) synonym. This may be expanded by the addition of a vernacular synonym and the source of the primary epithet. Users must reference the source by referring to the bibliography at the front of the dictionary. There is access to a botanical name when a vernacular name is known but not the converse. There is no index of botanical names. There is not a single main entry for vernacular 'binomials'. Each part has its own complete, and largely duplicated, entry. There are no cross-references, thus Aaron's Beard and Beard, Aaron's share the information. All of the vernacular synonyms have their own individual entries rather than being grouped together under a common botanical name.

The work was conceived as part of the author's wider interest in plant and tree lore, and ethno-botanical studies. A labor of love, a monument to the author, but its bulk, poor editing, out-of-date botanical nomenclature, and price only serve to make this less than an adequate choice for most libraries or researchers. Its restricted geographic scope also weighs against a potential purchase. It is not only British in scope, but heavily biased towards southern Britain. Although many of the names listed are current, most belong in the past, and the author makes no attempt to indicate which are current. This work is recommended only for those very large libraries that must have everything available on the subject.—*Gary L. Jennings, Botanical Research Institute of Texas, Fort Worth, TX 76102-4060, U.S.A.*